

Fire that caused the total wreckage shown above was blocked from passage to other buildings by a Stremel Tin Clad Fire Door. Photo on page 3 shows the complete lack of damage on the opposite side of wall after fire.

**Since 1890**

# **STREMEL Fire Doors**

**U**NDERWRITERS' Label Tin Clad Doors, Fire Curtains, Fire Doors, Automatic Swing Doors, Gravity Slide Doors, Counter-balanced Slide Doors, Special Kalamein Doors for steam and damp conditions, Swinging Trucking Doors for tow motor and hand trucking (heavy kick plates). Northwest Distributors of Kinnear Rolling Doors.

**STREMEL BROS. MANUFACTURING COMPANY**

**260 PLYMOUTH AVENUE NORTH**

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**MINNEAPOLIS 11, MINNESOTA**



## FOR YOUR FURTHER PROTECTION

**STREMEL BROS. PROVIDE THIS RED AND SILVER METAL LABEL WITH ALL STREMEL AUTOMATIC FIRE DOORS IT CAN EASILY BE ATTACHED AFTER DOOR IS ERECTED**



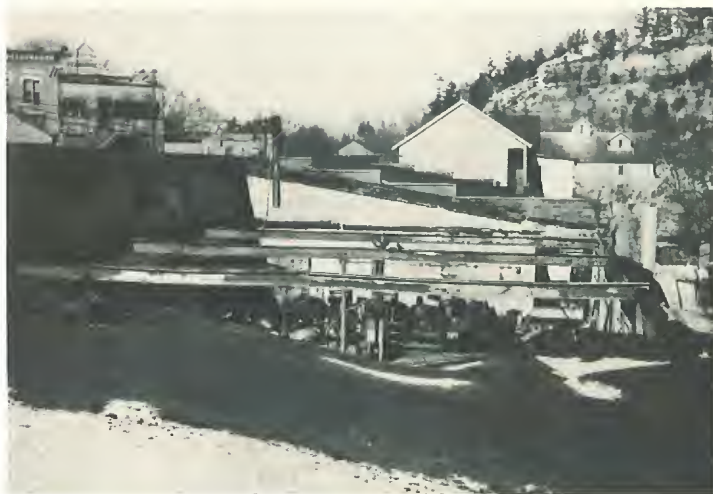
**FIRE DOOR PROTECTION CAN SAVE THOUSANDS OF DOLLARS IN--**

- **INSURANCE PREMIUMS**
- **LIVES AND PROPERTY**
- **BUSINESS INTERRUPTION DUE TO FIRES**

**STREMEL BROS. OFFER A COMPLETE ADVISORY SERVICE ON FIRE DOOR PROTECTION — ASK US ABOUT IT**



## ***STREMEL Tin Clad Fire Door Saves Building***



View of gutted building.



Side opposite fire.

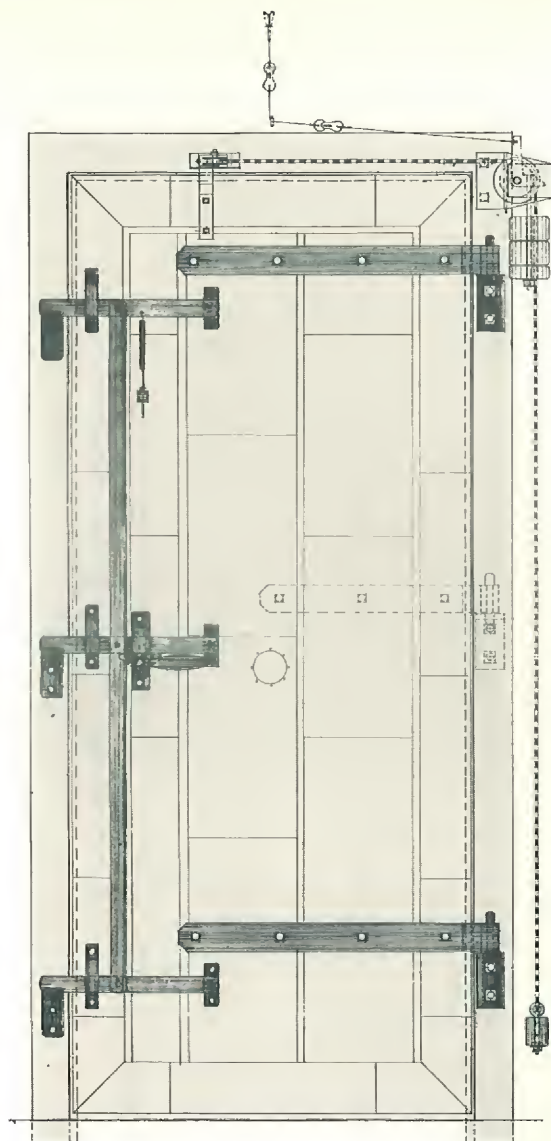
The above pictures show how a Stremel Tin Clad Fire Door saved the Schilling Electric Company's building at Galesville, Wisconsin during a recent fire which completely gutted one building.



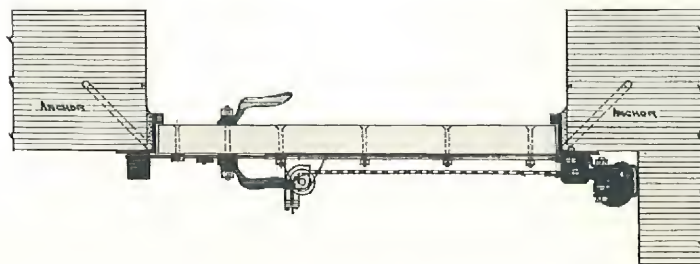


# UNDERWRITERS' LABEL TIN CLAD SWING DOOR

Labeled Door and Hardware Complete with Standard Frame and Weight Automatic

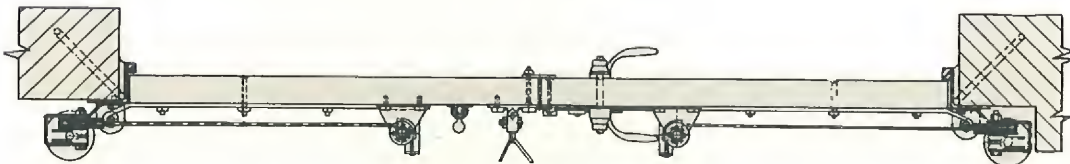
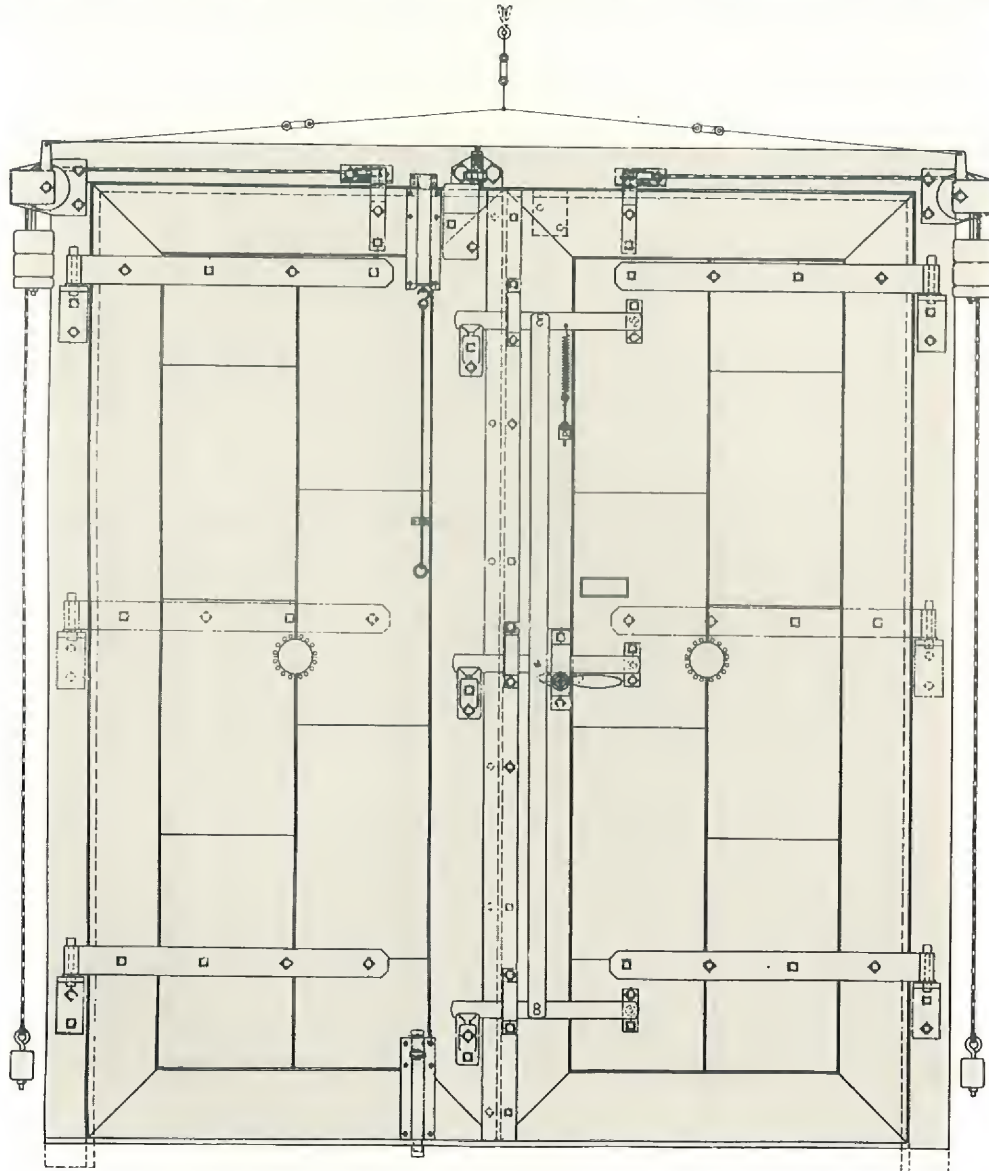


**NOTE TO ARCHITECT:**  
When specifying, use  
above terminology



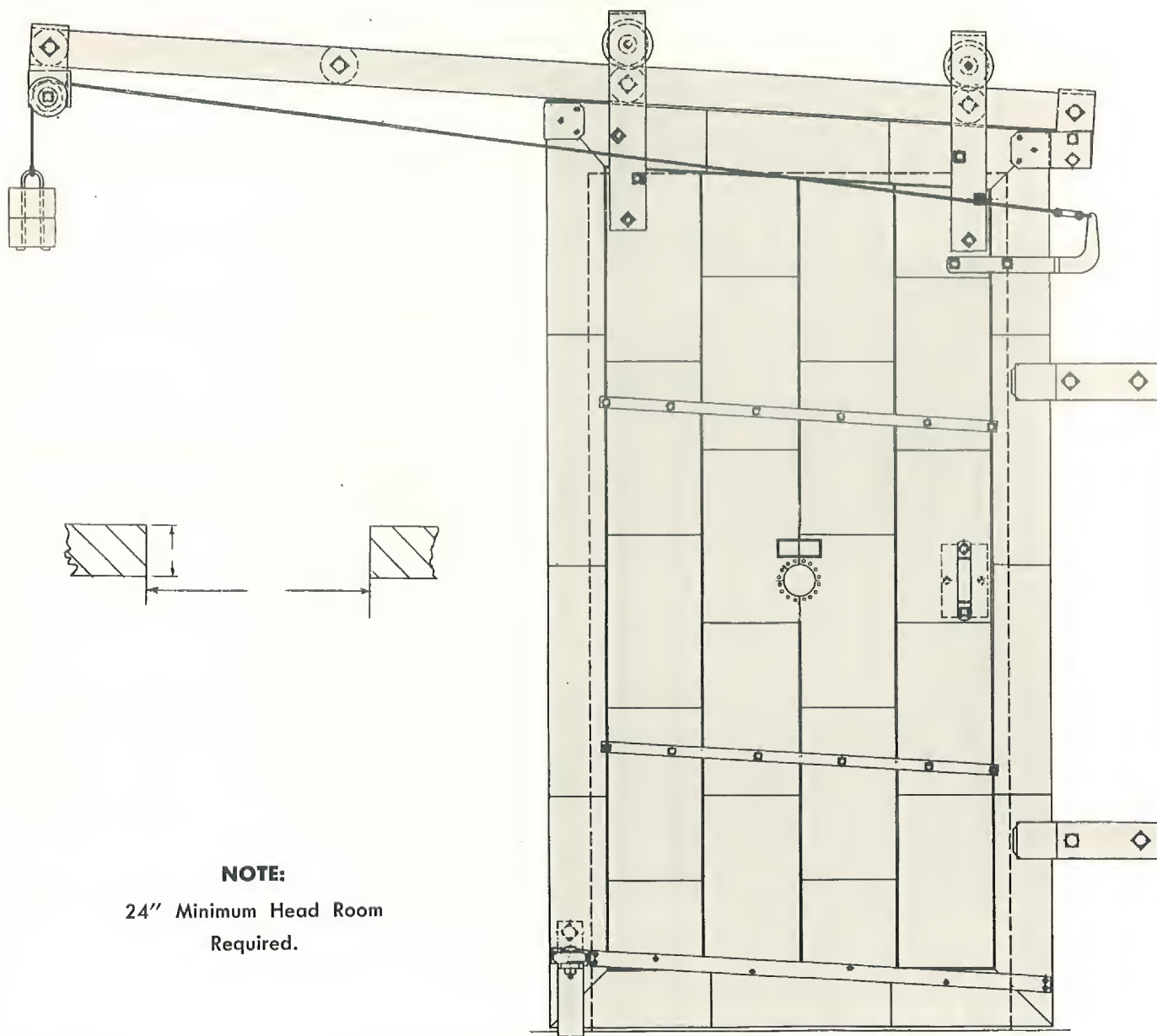
# UNDERWRITERS' LABEL PAIR TIN CLAD AUTOMATIC SWING DOORS

Labeled Door and Hardware Complete with Standard Frame and Weight Automatic



# UNDERWRITERS' LABELED TIN CLAD GRAVITY SLIDE DOOR

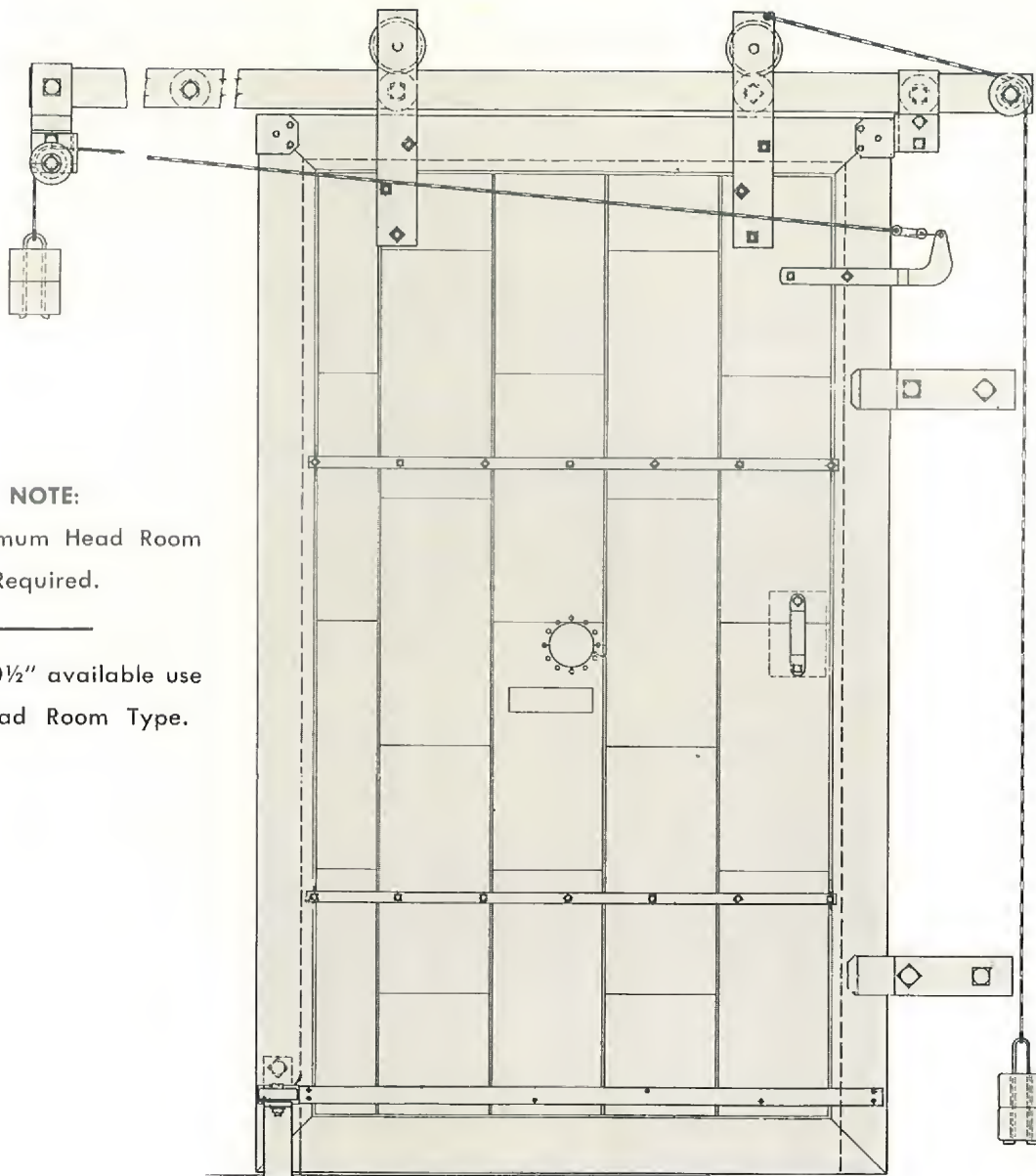
Labeled Door and Hardware Complete with Wall Bolts and Automatic





# UNDERWRITERS' LABELED TIN CLAD LEVEL TOP COUNTER-BALANCED SLIDE DOOR

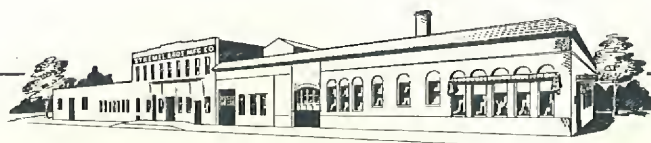
Labeled Door and Hardware Complete with Wall Bolts and Automatic



**NOTE:**

14" Minimum Head Room  
Required.

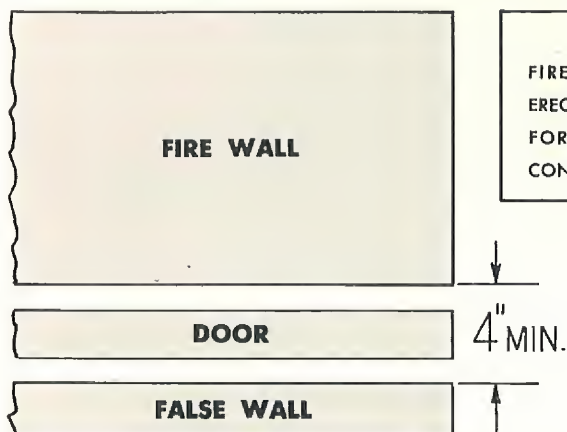
If only 10½" available use  
Low Head Room Type.



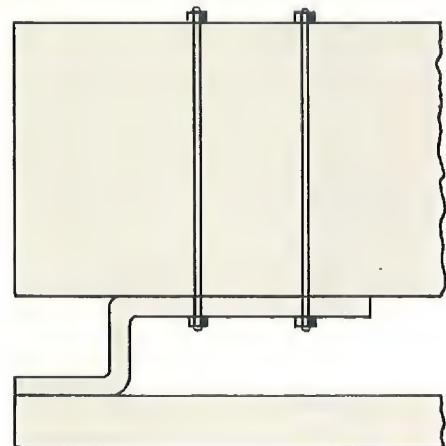
## An Easy Inexpensive Method of Concealing Fire Doors to Beautify Premises



**FULL UNDERWRITER'S FIRE WALL PROTECTION  
COMBINING BEAUTY WITH LOW COST.**



NOTE:  
FIRE DOORS MUST BE  
ERECTED COMPLETELY BE-  
FORE FALSE WALL IS  
CONSTRUCTED.



For Head Room Minimum See Pages 6 and 7.

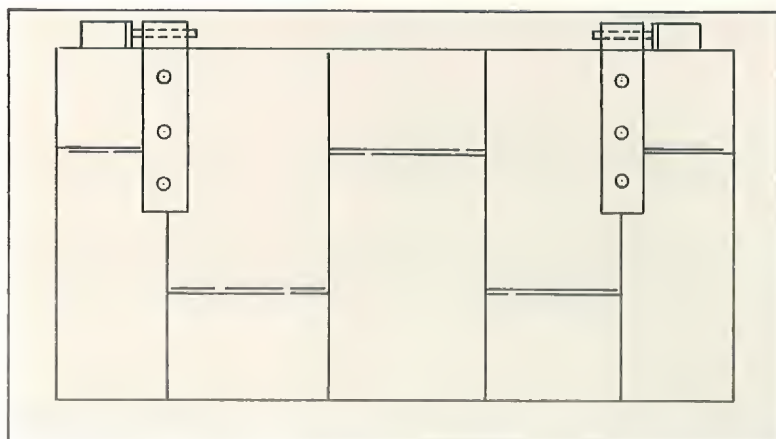
NOTE: False wall concealing fire door can be built to any specifications desired.



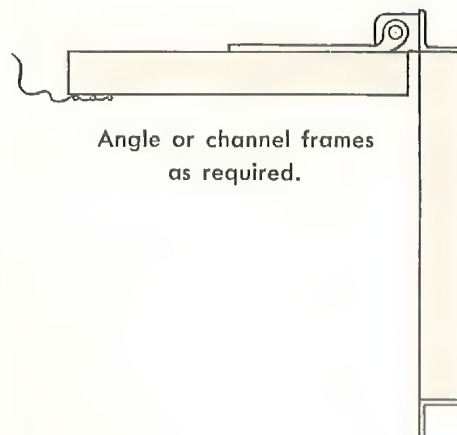


# UNDERWRITERS' A or B LABELED TIN CLAD DOORS

**For Air Conditioning--Heating and  
Ventilating - - Window and Door  
Openings in Fire Walls**

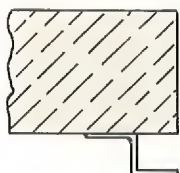


TOP HINGE DOOR



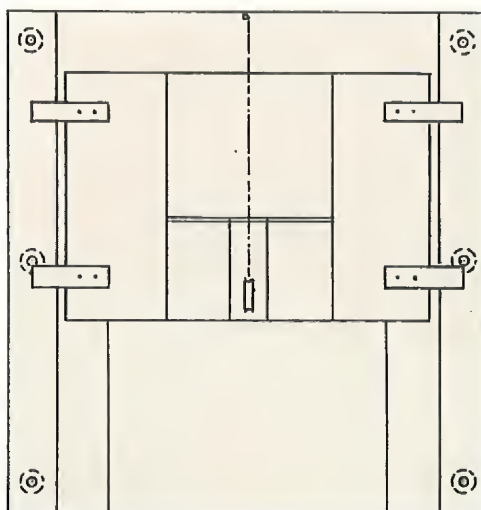
Angle or channel frames  
as required.

NOTE: Each door is designed and adapted to your specific requirements.

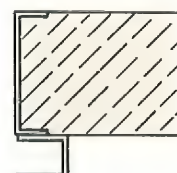


**NOTE:**

Guides are designed to meet  
side room conditions.



VERTICAL SLIDE DOOR



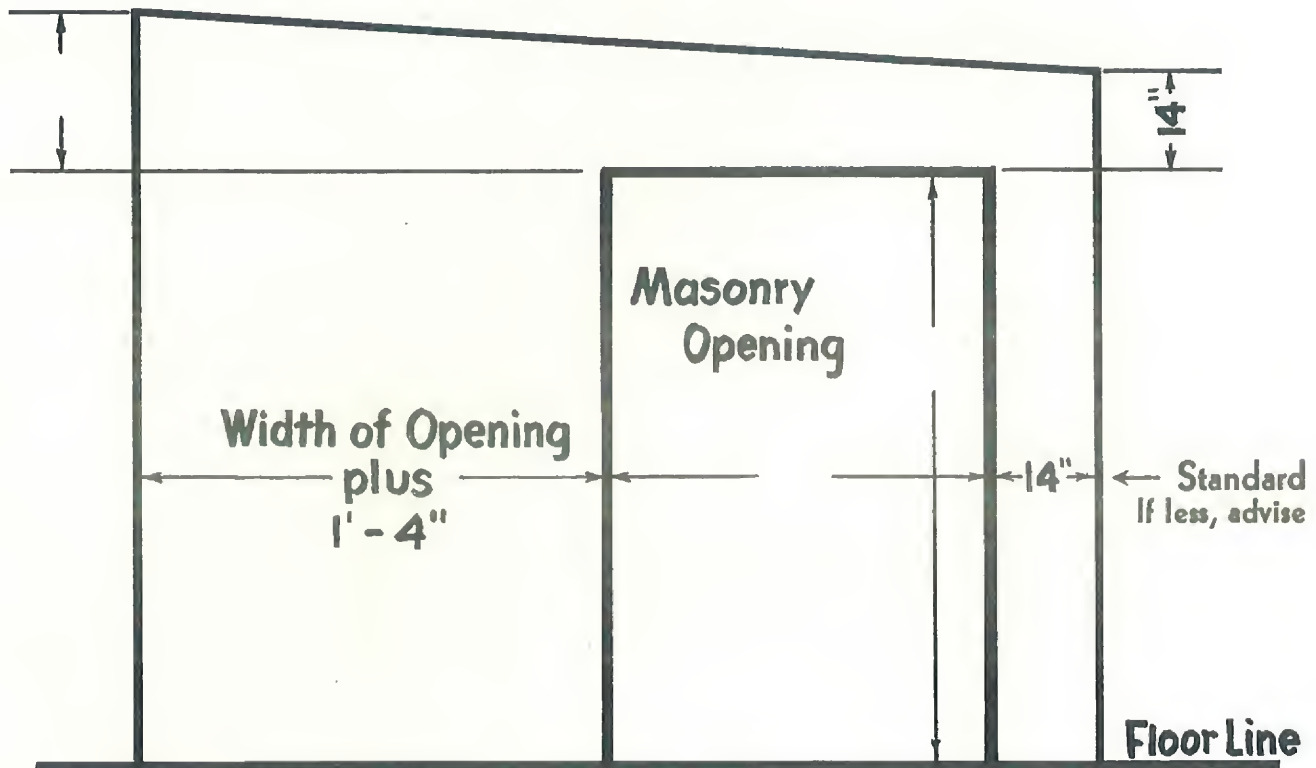
**NOTE:**

Counter weight systems  
furnished if desired.

NOTE: Stremel Bros. manufacture all hardware used on tin clad and Kalamein doors.  
Replacement hardware is immediately available at all times.



## How to Measure Opening for Underwriters' Labeled Tin Clad Sliding Doors



### WHEN ORDERING GIVE US THE FOLLOWING INFORMATION

1. Exact masonry opening size, etc.
2. Available room on each side of opening.
3. Available room above opening.
4. Material and thickness of the wall.
5. Show pipes through wall or other obstructions.

**SPECIFY:** Underwriters' Labeled Tin Clad Automatic Closing Doors and Hardware—furnishing the proper label for the type of opening on which the door will be used.

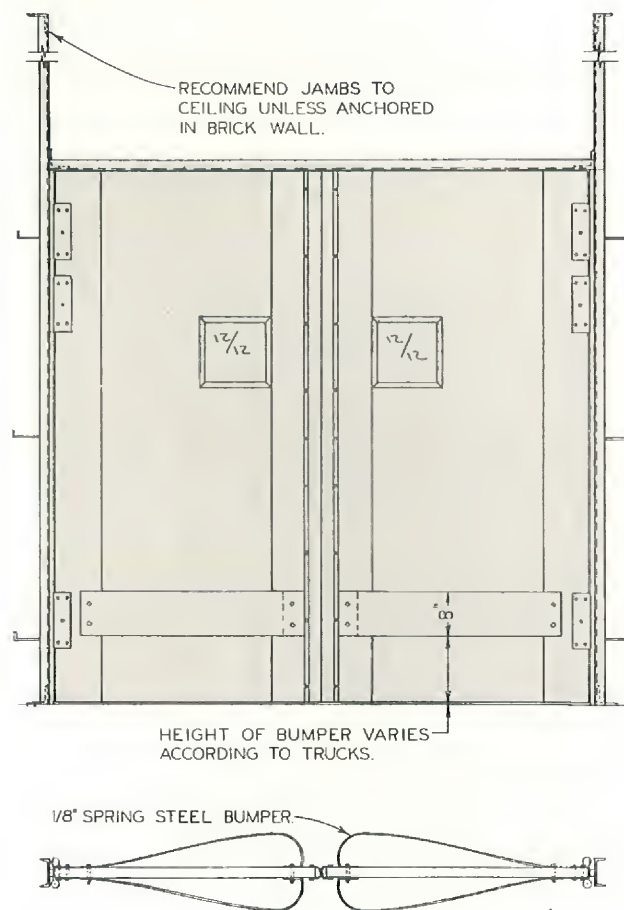
### QUOTATIONS ON FIRE DOORS

We will be glad to quote with our recommendations and details where necessary if you will let us know your requirements and conditions.





## Metal Clad Double Acting Doors for Warehouses, Loading Docks and Receiving Entrances



**For Light Hand Trucking:** Use 2-ply 25/32" dressed and center matched lumber, clinch nailed, 1 3/4" thick, covered with No. 26 galvanized iron, flush seam, blind nailed, with 12" x 12" vision lights 4'9" up and 6" from the center edge of each door. Doors to be set in channel frames, run from floor to ceiling except where used in heavy brick walls. Doors to have 1/8 x 8" spring steel bumpers set as required for height. Hinges to be Chicago 12001 10" or Chicago 1 3/4" heavy duty double-acting as size of door may require. Frames to have filler bars to meet requirements of the hinges. Recommend round center

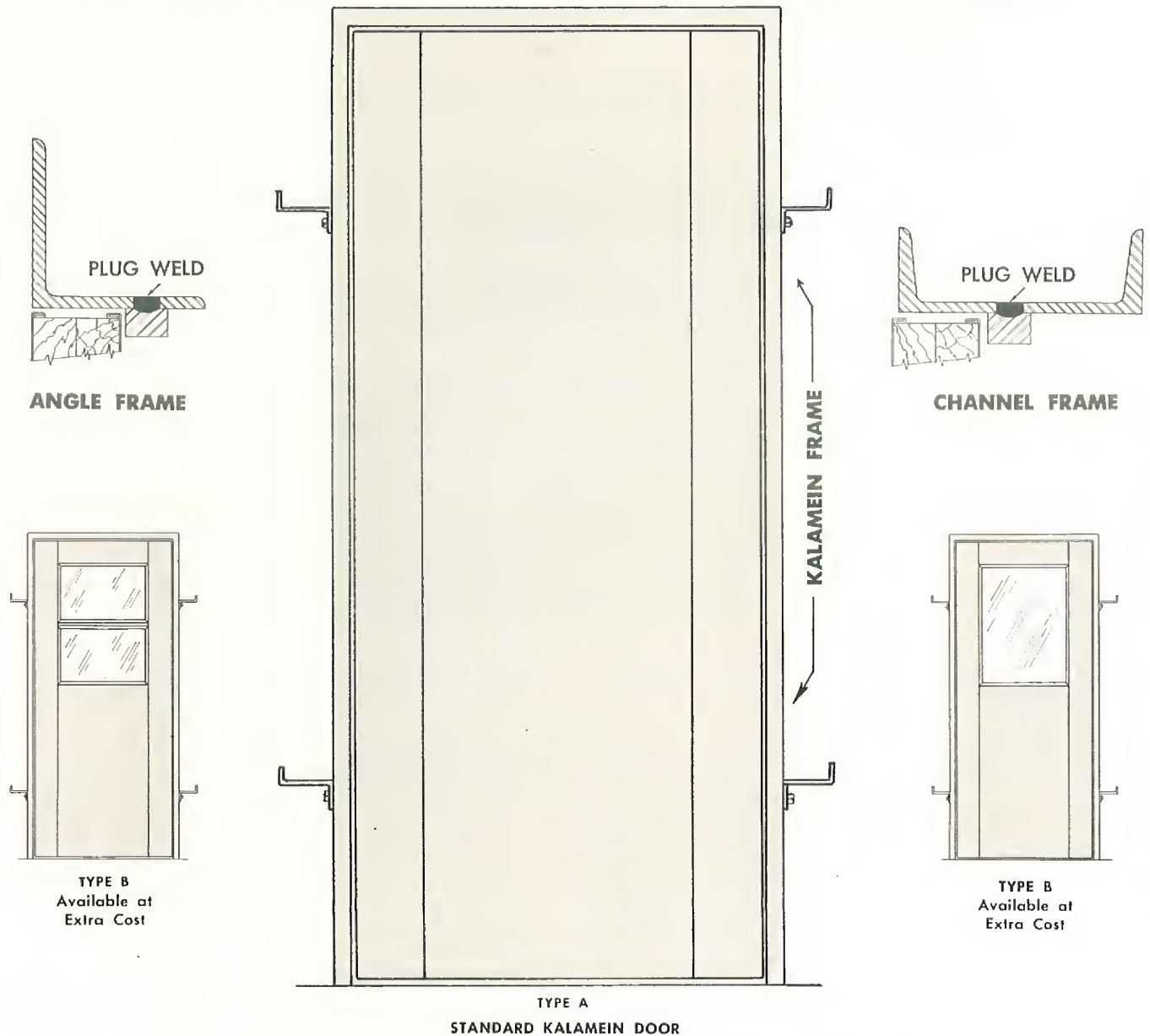
edges for interior doors and fabric rubber astragals for exterior.

**For Heavy Trucking Where Tow Motors Are Used:** Use 3-ply door as described for the light trucking construction 2 1/4" thick with the same vision panels, No. 14 gauge kick plates, and 1/8 x 8" spring steel bumpers to meet particular requirements. Use Chicago 2 1/4" Hi-duty double-acting hinges with steel frames and filler bars or Shelby gravity cam hinges with steel frames and follow strip, the same as required for the light trucking openings. Doors to have the same No. 26 galvanized covering.



# STANDARD KALAMEIN METAL CLAD SWING DOORS

**For Creameries, Grain Elevator Head Houses,  
Warehouses and Private Residence Openings to Garage**

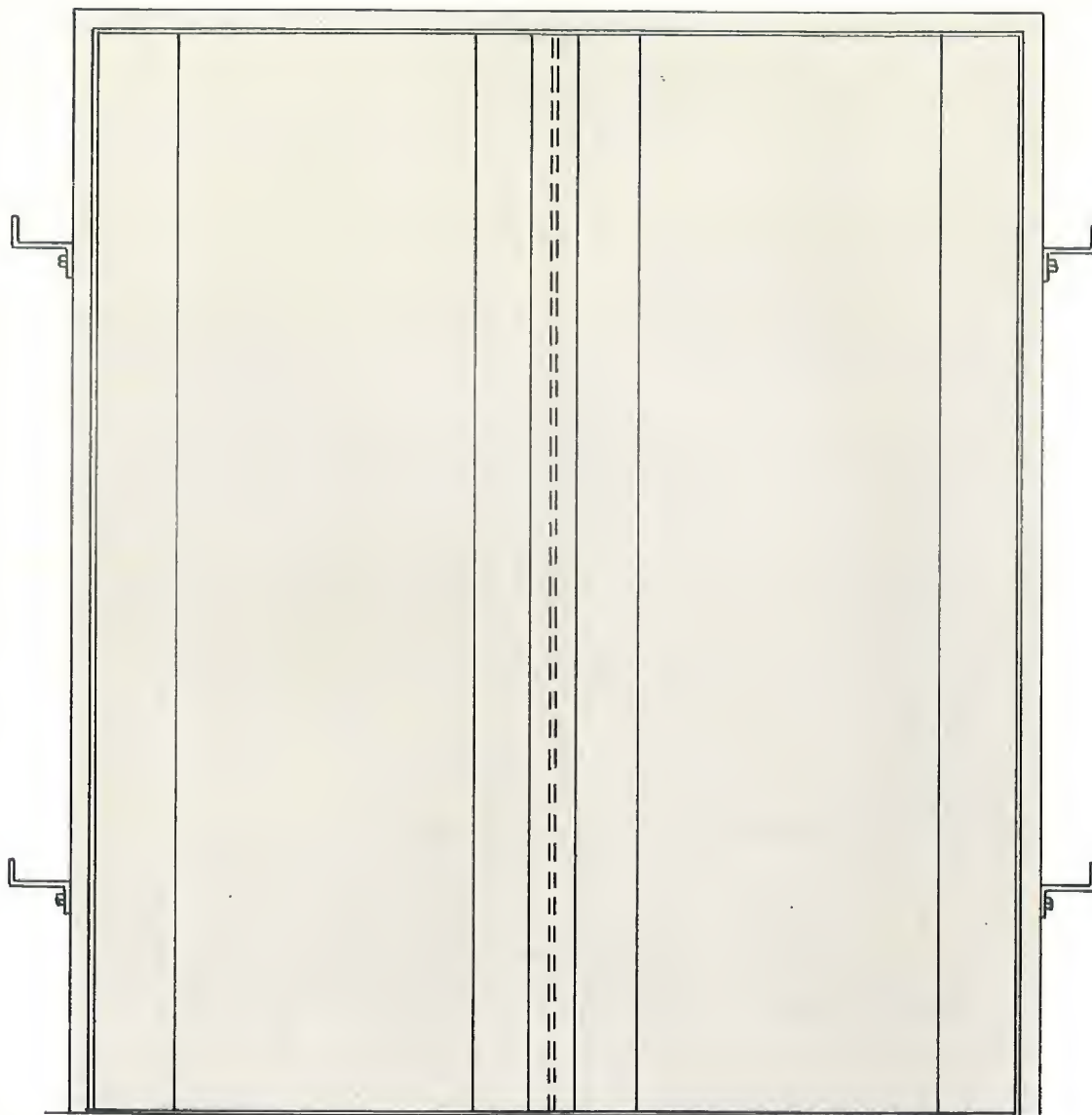


These doors are designed for openings in creameries subject to excess moisture conditions. Also grain elevator head houses, warehouses, private residence openings to garages. They do not bear the Underwriters' label but are acceptable according to the Building Ordinances for type "A" and "B" openings in stairways in apartment buildings where Underwriters' label is not required. Be sure to specify frame type when ordering.





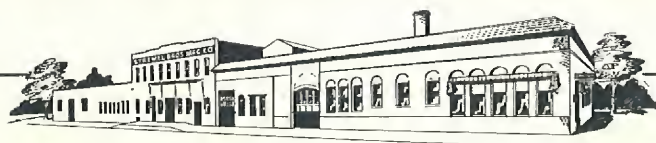
## PAIR STANDARD KALAMEIN METAL CLAD SWING DOORS SOLDERED FLUSH • LONG LIFE • WATERPROOF



**HOW TO SPECIFY:** All Metal Clad or Kalemein Doors shall be metal covered with 2-ply 1 $\frac{3}{4}$ " thick wood cores made from 25/32" dressed and center matched western pine to Underwriters' specifications, covered with 26-gauge galvanized iron, flat lock seamed and blind nailed with soldered heads and bottoms for exterior openings and completely soldered for excess moisture conditions with hardware required to meet conditions. (Use galvanized T hinges and thumb latch for excess moisture and half-surface butts where acceptable.)



## STREMEL FIRE DOORS PROTECTED MAIN BUILDING IN BREDE, INC. PAINTSHOP FLASH FIRE





# KINNEAR STEEL ROLLING DOORS

SERVICE TYPE — NON - AUTOMATIC



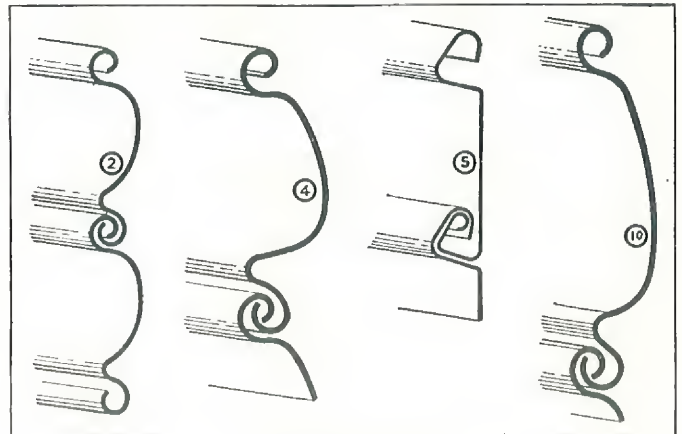
KINNEAR ROLLING DOOR WITH WINDOWS.

## FEATURES

The curtain proper of Kinnear Service Doors is constructed of open-hearth, steel interlocking slats, galvanized with pure zinc, and equipped with endlocks of suitable material. It may also be of other metals and coatings. This curtain is coiled upon a barrel journaled in heavy cast iron (or steel plate brackets where necessary on very large doors) and travels in steel guides. Helical springs enclosed in the barrel provide counter-balancing. A metal hood covers barrel and coil.

## STANDARD TYPES, SIZES AND LIMITATIONS

Kinnear Service Doors are offered in several standard types based on two methods of installation and four of operation. Installation may be (1) Between-the-jam, where door mechanism is encased under the lintel, and (2) Face-of-wall, where the brackets and coil are mounted and encased on the face of the wall. Operations may be (1) Manual Pushup by means of handle in bottom bar, (2) Mechanically by hand chains working through sprockets and reduction gears, (3) Mechanically by hand crank operated on shaft and reduction gearing; and (4) Electrically by a power operator, controlled by one



## KINNEAR SLATS

Interlocking slats were originated by Kinnear. There are only a few old corrugated iron rolling doors in existence today, but at one time a corrugated sheet coiled up on a pipe was the only rolling curtain known. W. R. Kinnear originated the interlocking slat curtain and organized The Kinnear Manufacturing Company.

In the development of the rolling door this original slat design has been modified and improved, but the original features have been maintained. These features are incorporated in the Kinnear slats No. 2, No. 4, and No. 10.

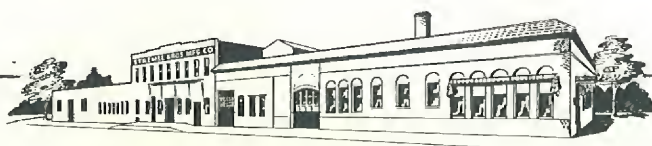
These three sections include the following important features:

1. Water shedding assembly.
2. Reversibility.
3. Resistance to both horizontal and vertical forces.
4. Resiliency.
5. Free acting joints.
6. Compressibility.
7. Pleasing appearance.

Slats are rolled from sheet metal which has been hot-dip galvanized by a special process. They are made in different weights and in a number of styles. Details submitted upon request.

or more push buttons or other means. While manual operation is used for small doors, mechanical operation is recommended for those over 80 square feet in area. In view of the saving in time, labor and convenience afforded by motor control, it is now most frequently used.

As each door is built for a specific job it can be made any reasonable size, limited only by what is practical from an engineering and operating standpoint. Kinnear Rolling Doors are also available with windows for light and visibility.



# KINNEAR ROLLING FIRE DOORS

AKBAR CONSTRUCTION — AUTOMATIC — LABELED



MAJOR FEATURES OF "AKBAR"

1. Automatic closure is positive from the open position, the curtain being driven by a powerful auxiliary motor spring which operates independently from the counter-balance spring, and which not only starts but actually drives the curtain to a closed position.
2. Improved barrel lock prevents further rotation of barrel when curtain is in a closed position.
3. A safety device, or governor, controls downward travel of curtain in automatic closure. This device is a protection to human life and eliminates the possibility of accident, also the impact on sills, rebound and the jamming of slats which is common to gravity closing doors.
4. Tension of counter-balance spring is not released in automatic closure and doors can be raised and will close again unless reset. This is a distinctive feature of the "Akbar" Door.
5. The inner hood, or baffle plate, operates automatically in case of fire, closing the space between the hood and coil when door is in closed position and effectively preventing the passage of flame or smoke from one area to another.
6. "Akbar" types can be quickly and easily reset after automatic closure, because the release of the automatic mechanism does not disturb the counter-balance

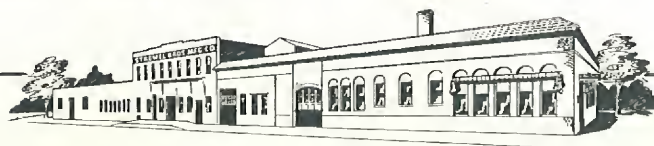
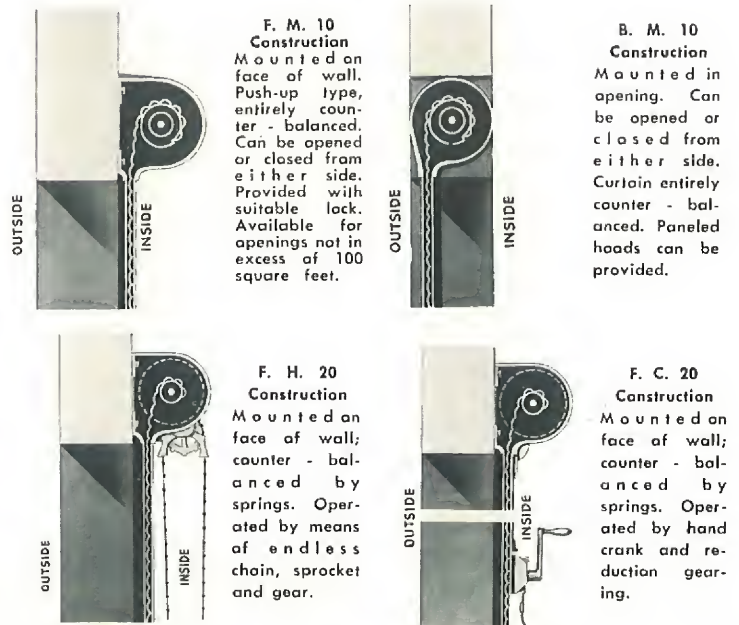
spring. The link lever is merely reset and the door raised to the open position. This automatically restores tension on the auxiliary or push-down spring, and prepares the door for both normal or automatic operation. Because of this ease of resetting, it is a simple matter to frequently test a Kinnear "Akbar" Fire Door.

The Underwriters' Laboratories, Inc., label service covers all Akbar constructions for exterior openings not exceeding 100 sq. ft. where width or height does not exceed 12 feet.

On fire walls, room partitions, elevator shafts and corridor openings the limit of area is 80 sq. ft., the width or height not to exceed 12 feet. Doors in excess of these areas are factory inspected by representatives of the Underwriters' Laboratories, Inc., and a certificate is issued which is a guarantee that the doors are constructed according to label requirements with the exception of size.

When this service is required it must be indicated with the order.

## Showing Methods of Installation and Operation of Kinnear Rolling Doors





# KINNEAR Sectional Overhead RoL-TOP DOORS

## WOOD OR STEEL

Like all Kinnear doors, the RoL-TOP opens upward, affording maximum convenience, efficiency and permanence of service, as well as the extra feature of allowing installation of glass. Sections, built of heavily galvanized steel or kiln dried lumber with top quality plywood panels, are hinged together horizontally and fitted at both ends with heavy duty ball bearing rollers. By means of these rollers, operating in steel tracks or guides mounted on jamb and extending horizontally back from lintel, door is rolled to overhead horizontal position. Door is accurately counter-balanced.

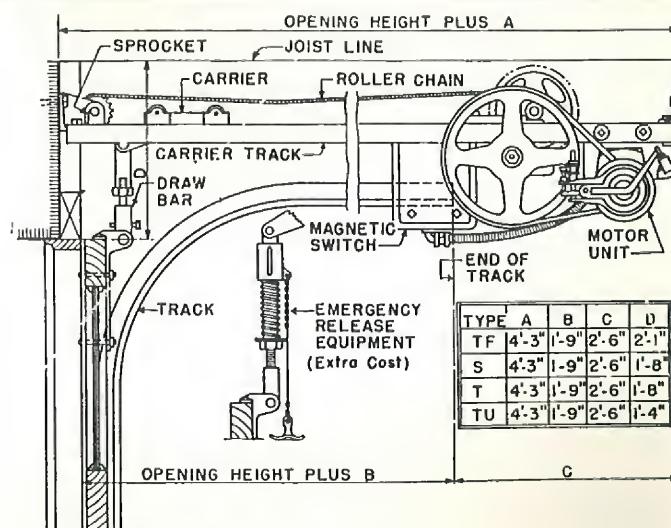
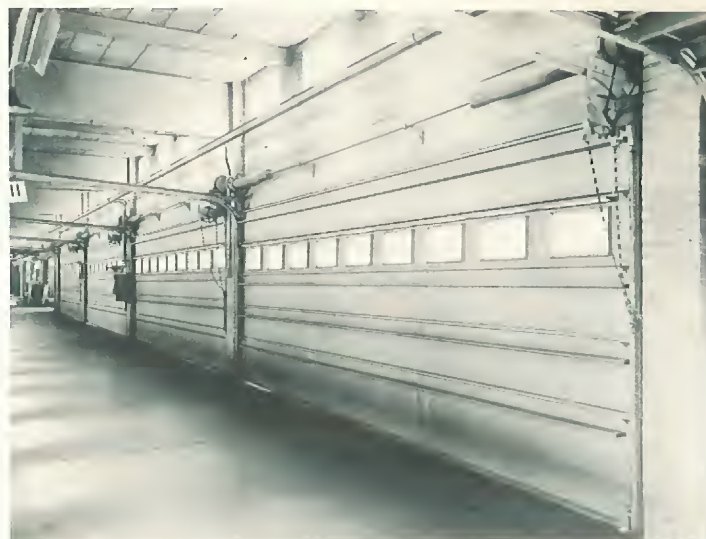
### EXTRA - VALUE RoL-TOP FEATURES

**"Keystone" Seal** — This specially designed seal gives effective protection from the elements; it assures a tight closure when door is down, yet permits smooth, unhampered opening. No mechanical adjustment is required; no swelling of wood mould strips binds the doors. Ends of door sections are continuously tapered from top to bottom of door. Galvanized metal seal strips on jamb correspond to taper on door. Thus door acts as a keystone wedge between the seals when in closed position. No other door offers this protection.

**Malleable Hardware**—All RoL-TOP doors are equipped with rugged malleable iron hardware applied through carriage bolts (no screws). It is inconsistent to use light, weak, unfinished hardware on top-quality paneling; Kinnear hardware is the answer.

### ELECTRIC MOTOR OPERATOR

Features of RoL-TOP motor operator shown at right are: The drawbar type electric motor operator is designed especially for efficient operation on all RoL-TOP doors of moderate size and where headroom is available. Embodies such features as (1) Spring-set brake for stopping door without shock. (2) Standard reversible motor. (3) Safety slipping clutch. (4) Remote control magnetic reversing switch. (5) Cut gears square jaw clutch. (6) Graphite and oilless bushings. (7) Adjustable screw type limit switch. (8) Adjustment for tightening tension on V-type driving belt. (9) Three button wall mounted operating station. (10) Steel roller chain. (11) Special detachable drawer for quick disconnection in case of power failure. Note: Where headroom is not available, or on very large doors, see details of Kinnear integral hoist type operator on pages 12 and 16.



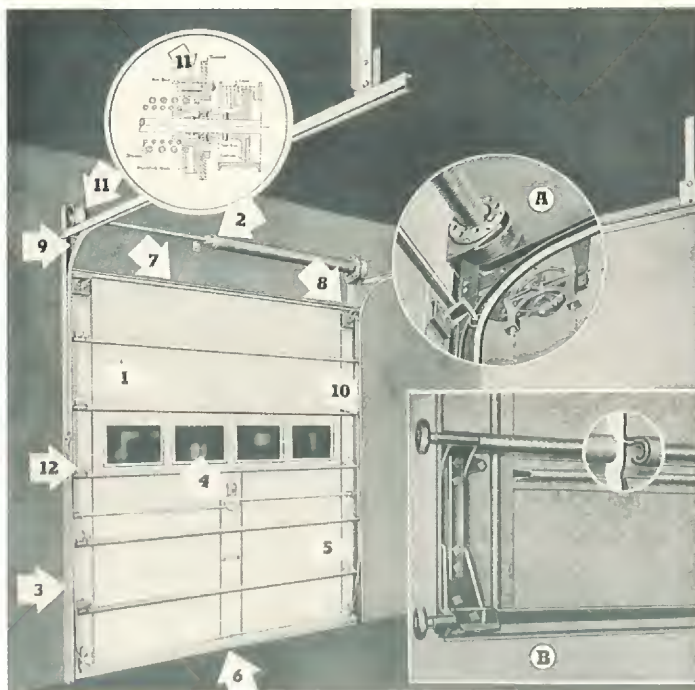


# GENERAL CONSTRUCTION OF KINNEAR RoL-TOP DOORS

## STEEL RoL-TOP

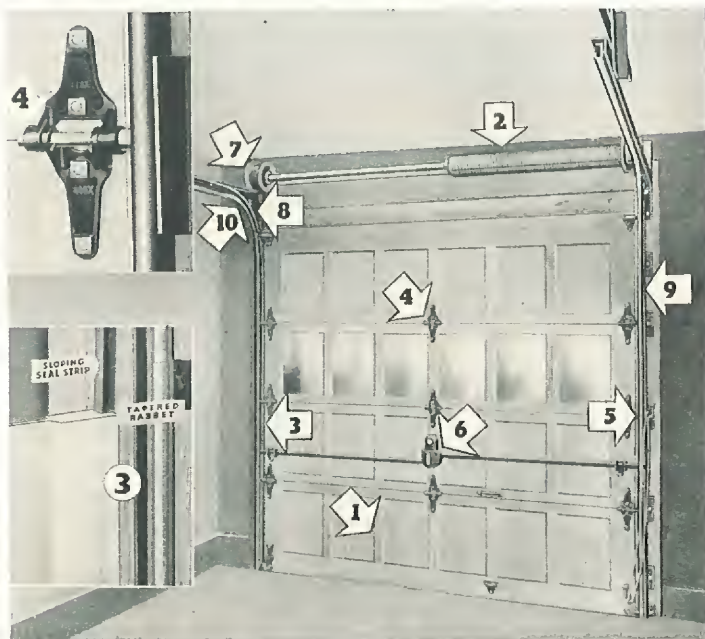
1. Galvanized steel sections. Zinc coated by the hot process for ASTM standard class 1.75 oz. and then provided with a phosphate coating for paint adhesion. Each end, and points where hardware is applied, are reinforced by a welded steel member.
2. Kinnear single-shaft torsion spring counter-balance. Matched to the door. Assures synchronized, uniform lifting action.
3. Heavy duty solidly mounted tracks.
4. Cylinder type, center-located lock. Securely locks both sides of door.
5. Adjustable metal jamb strips for weather-protecting seal.
6. Rubber weatherstrip for sealing bottom of door to floor irregularities.
7. Adjustable metal weatherstrip to bring top of door in close contact with lintel.
8. Lifting cable of preformed type, with minimum safety factor of 10.
9. Track curve integral with horizontal member and of proper radius to insure smooth door operation.
10. Kinnear especially designed ball bearing rollers. Free acting and secure door in track.
11. Ball type shaft bearing for reducing friction and wear to a minimum.
12. Rugged malleable hardware applied with through carriage bolts.

A — Supporting bracket, top closing roller and reduction gearing, for larger chain hoist operated doors.  
B — Rugged hardware and roller brackets for larger doors.



## WOOD RoL - TOP

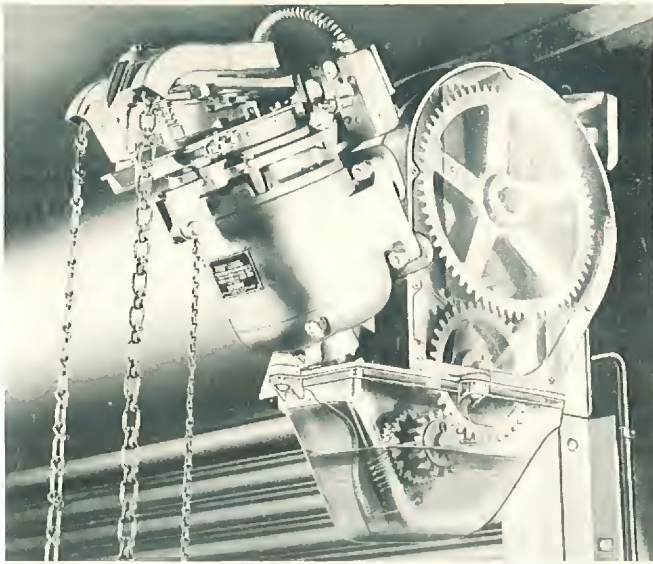
1. Door sections approximately 2 feet high of best quality kiln dried lumber with three-ply, waterproof glued paneling and graduated end rabbet to fit Kinnear's exclusive "Keystone" sealing arrangement.
2. Kinnear single - shaft torsion spring counter - balance. Matched to the door. Assures synchronized, uniform lifting action.
3. "Keystone" weather protecting seal. An exclusive RoL-TOP feature. Ends of door sections have a downward tapering or graduated rabbet. Galvanized metal seal strips are mounted to the jamb in a sloped position to correspond to the tapered rabbet on the door. As the door closes it seals and wedges itself tightly between the seal strips in exactly the same manner that a keystone seats in an arch. Thus a triple-contact seal is achieved without hampering free and smooth operation of the door.
4. Rugged malleable hardware applied with through carriage bolts.
5. Kinnear especially designed ball bearing rollers. Free acting and secure door in track.
6. Cylinder type, center-located lock. Securely locks both sides of door.
7. Ball type shaft bearing for reducing friction and wear to a minimum.
8. Lifting cable of preformed type, with minimum safety factor of 10.
9. Heavy duty solidly mounted tracks.
10. Track curve integral with horizontal member and of proper radius to insure smooth door operation.





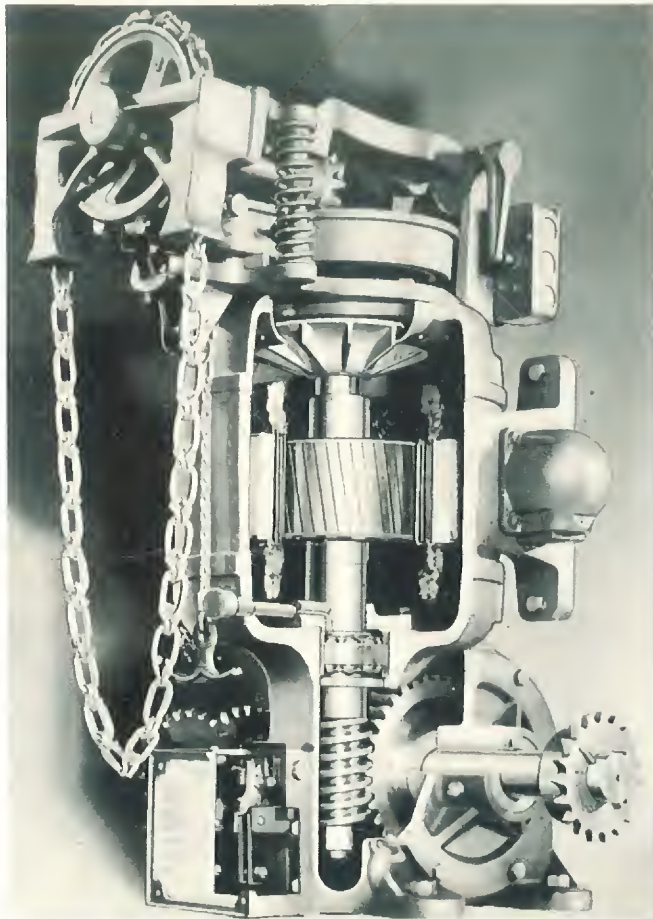
### BRACKET MOUNTED TYPE "A"

The Kinnear Type "A" Bracket Mounted Power Unit is attached to the bracket in which the curtain coil is journaled and is so compactly arranged that it requires little more space than a chain operated door. Note illustration. It is especially designed—usually in two different sizes—for doors not exceeding 22 feet high or 20 feet wide, having a maximum area of approximately 210 square feet of No. 20 U. S. gauge curtain. It's an operator that may be added to existing manually operated Kinnear Doors. When installing doors that may later be motorized, it should be made certain that sufficient clearances are kept available.



### WALL MOUNTED TYPE "B"

The Kinnear Type "B" Wall Mounted Power Units are especially designed for handling larger doors than the Type "A" Unit; or generally doors exceeding 22 feet high or 20 feet wide having an area of more than 210 square feet of No. 20 U. S. gauge curtain. However it is also designed for greater flexibility of mounting providing for conditions where obstructions or limited clearances prevent mounting in the more conventional manner. As the illustration at left shows, it is a neat, compact, heavy-duty unit that embodies the highest quality construction features that can be found in electric power equipment.





# STREMEL BROS. MANUFACTURING COMPANY



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MINNEAPOLIS 11, MINNESOTA